

Complete Summary

TITLE

Acute myocardial infarction (AMI): percentage of enrolled members 35 years of age and older who received an ambulatory prescription for beta-blockers within seven days (inclusive) after being discharged alive from the hospital with a diagnosis of AMI.

SOURCE(S)

National Committee for Quality Assurance (NCQA). HEDIS 2006. Health plan employer data & information set. Vol. 2, Technical specifications. Washington (DC): National Committee for Quality Assurance (NCQA); 2005. 350 p.

Measure Domain

PRIMARY MEASURE DOMAIN

Process

The validity of measures depends on how they are built. By examining the key building blocks of a measure, you can assess its validity for your purpose. For more information, visit the [Measure Validity](#) page.

SECONDARY MEASURE DOMAIN

Does not apply to this measure

Brief Abstract

DESCRIPTION

This measure is used to assess the percentage of enrolled members 35 years of age and older during the measurement year who were hospitalized and discharged alive from January 1 through December 24 of the measurement year with a diagnosis of acute myocardial infarction (AMI) and who received an ambulatory prescription for beta-blockers upon discharge.

Note from the National Quality Measures Clearinghouse (NQMC): For this measure there is both Administrative and Hybrid Specifications. This NQMC measure summary is based on the Administrative Specification. Refer to the original measure documentation for details pertaining to the Hybrid Specification.

RATIONALE

The intent of this measure is to assess whether appropriate follow-up care has been rendered to members who suffer a heart attack. Underutilization of beta blocker therapy can lead to increased morbidity and mortality, increased demand for related medical resources when the health state following an acute myocardial infarction (AMI) is sub-optimal.

PRIMARY CLINICAL COMPONENT

Acute myocardial infarction (AMI); beta-blockers

DENOMINATOR DESCRIPTION

Enrolled members 35 years of age and older as of December 31 of the measurement year who were hospitalized and discharged alive from an inpatient setting with an acute myocardial infarction (AMI) from January 1 through December 24 of the measurement year (see the "Description of Case Finding" and the "Denominator Inclusions/Exclusions" fields in the Complete Summary)

NUMERATOR DESCRIPTION

Members who have a claim indicating beta blocker therapy or who received an ambulatory prescription for beta-blockers within seven days (inclusive) after discharge (see the related "Numerator Inclusions/Exclusions" field in the Complete Summary)

Evidence Supporting the Measure

EVIDENCE SUPPORTING THE CRITERION OF QUALITY

- A clinical practice guideline or other peer-reviewed synthesis of the clinical evidence
- A formal consensus procedure involving experts in relevant clinical, methodological, and organizational sciences
- A systematic review of the clinical literature
- One or more research studies published in a National Library of Medicine (NLM) indexed, peer-reviewed journal

Evidence Supporting Need for the Measure

NEED FOR THE MEASURE

Use of this measure to improve performance
Variation in quality for the performance measured

EVIDENCE SUPPORTING NEED FOR THE MEASURE

National Committee for Quality Assurance (NCQA). The state of health care quality 2005: industry trends and analysis. Washington (DC): National Committee for Quality Assurance (NCQA); 2005.

State of Use of the Measure

STATE OF USE

Current routine use

CURRENT USE

Accreditation
Decision-making by businesses about health-plan purchasing
Decision-making by consumers about health plan/provider choice
External oversight/Medicaid
External oversight/Medicare
External oversight/State government program
Internal quality improvement

Application of Measure in its Current Use

CARE SETTING

Managed Care Plans

PROFESSIONALS RESPONSIBLE FOR HEALTH CARE

Measure is not provider specific

LOWEST LEVEL OF HEALTH CARE DELIVERY ADDRESSED

Single Health Care Delivery Organizations

TARGET POPULATION AGE

Age greater than or equal to 35 years

TARGET POPULATION GENDER

Either male or female

STRATIFICATION BY VULNERABLE POPULATIONS

Unspecified

Characteristics of the Primary Clinical Component

INCIDENCE/PREVALENCE

Approximately 1.1 million- 650,000 first and 450,000 recurrent- heart attacks occur each year in the United States, with about 450,000 resulting in death. It is

estimated that 7.2 million Americans, 20 years of age and older have a history of myocardial infarction (4.4 million men and 2.8 million women).

EVIDENCE FOR INCIDENCE/PREVALENCE

American Heart Association (AHA). 2000 heart and stroke statistical update. Dallas (TX): American Heart Association (AHA); 1999. 29 p.

Morbidity & Mortality: 2002 chart book on cardiovascular, lung and blood diseases. Bethesda (MD): National Institutes of Health, National Heart, Lung and Blood Institute; 2000. 104 p.

ASSOCIATION WITH VULNERABLE POPULATIONS

Elderly, Blacks, and patients with comorbidities.

EVIDENCE FOR ASSOCIATION WITH VULNERABLE POPULATIONS

Gottlieb SS, McCarter RJ, Vogel RA. Effect of beta-blockade on mortality among high-risk and low-risk patients after myocardial infarction. N Engl J Med 1998 Aug 20; 339(8): 489-97. [PubMed](#)

BURDEN OF ILLNESS

See "Incidence/Prevalence" field.

UTILIZATION

See "Costs" field.

COSTS

The American Heart Association estimates that the total annual cost of medical care and lost productivity due to heart disease is \$12 billion to \$24 billion. Acute myocardial infarction (AMI) represents 18% of hospital discharges and 28% of deaths due to heart disease, so one might estimate that the costs associated with AMI might be in the range from about \$39-60 billion.

EVIDENCE FOR COSTS

Morbidity & Mortality: 2002 chart book on cardiovascular, lung and blood diseases. Bethesda (MD): National Institutes of Health, National Heart, Lung and Blood Institute; 2000. 104 p.

National Committee for Quality Assurance (NCQA). HEDIS 2006: narrative: what's in it and why it matters. Vol. 1. Washington (DC): National Committee for Quality Assurance (NCQA); 2005. 88 p.

Institute of Medicine National Healthcare Quality Report Categories

IOM CARE NEED

Living with Illness

IOM DOMAIN

Effectiveness

Data Collection for the Measure

CASE FINDING

Users of care only

DESCRIPTION OF CASE FINDING

Enrolled members 35 years of age and older as of December 31 of the measurement year who were hospitalized and discharged alive from an inpatient setting with an acute myocardial infarction (AMI) from January 1 through December 24 of the measurement year and who were continuously enrolled on the discharge date and seven days after discharge (inclusive) with no gaps in enrollment

DENOMINATOR SAMPLING FRAME

Patients associated with provider

DENOMINATOR INCLUSIONS/EXCLUSIONS

Inclusions

Enrolled members 35 years of age and older as of December 31 of the measurement year who were hospitalized and discharged alive from an inpatient setting with an acute myocardial infarction (AMI) from January 1 through December 24 of the measurement year*

*If a member has more than one episode of AMI from January 1 through December 24 of the measurement year, the managed care organizations (MCO) should only include the first discharge and must use the codes listed in Table BBH-A in the original measure documentation to identify AMIs.

Transfers to acute facilities. The MCO should include hospitalizations in which the member was transferred directly to another acute care facility for any diagnosis. The discharge date from the facility to which the member was transferred must occur on or before December 24 of the measurement year.

Exclusions

The MCO is strongly encouraged to exclude from the denominator members who are identified as having a contraindication to beta-blocker therapy or previous adverse reaction (i.e., intolerance) to beta-blocker therapy. The MCO should look

as far back as possible in the member's history through the end of the continuous enrollment period, through either administrative data or medical record review for evidence of a contraindication or a previous adverse reaction to beta-blocker therapy. Refer to Table BBH-D in the original measure documentation for codes to identify contraindications to beta-blocker therapy.

Transfers to non-acute facilities. The MCO should exclude from the denominator hospitalizations in which the member was transferred directly to a non-acute care facility for any diagnosis.

Readmissions. The MCO should exclude from the denominator hospitalizations in which the member was readmitted to an acute or non-acute care facility for any diagnosis within seven days after discharge, because tracking the member between admissions is not deemed feasible.

RELATIONSHIP OF DENOMINATOR TO NUMERATOR

All cases in the denominator are equally eligible to appear in the numerator

DENOMINATOR (INDEX) EVENT

Clinical Condition
Institutionalization
Patient Characteristic

DENOMINATOR TIME WINDOW

Time window brackets index event

NUMERATOR INCLUSIONS/EXCLUSIONS

Inclusions

Members who have a claim indicating beta blocker therapy or who received an ambulatory prescription for beta-blockers within seven days (inclusive) after discharge. Refer to Table BBH-B in the original measure documentation for beta-blockers included in this measure and Table BBH-C in the original measure documentation for the Current Procedure Terminology (CPT) code indicating beta-blocker therapy. Prescriptions rendered on an ambulatory basis any time while the patient is hospitalized for acute myocardial infarction (AMI) through the seventh day after discharge count toward this measure. If the managed care organization (MCO) is unable to determine if the prescription was rendered on an inpatient or ambulatory basis, it may only count prescriptions rendered after discharge. To account for members who are on beta-blockers prior to admission, the MCO may also count prescriptions for beta-blockers that are active at the time of admission.

A prescription is considered active if the "days supply" indicated on the date the member filled the prescription is the number of days or more between the date the prescription was filled and the relevant admission date. Table BBH-C may also be used to indicate the member was on beta-blocker medication.

Transfers. If a member was directly transferred to another acute facility, the MCO should identify that the prescription is active on the date of admission for the initial inpatient stay for AMI or that the member received a beta-blocker prescription within seven days after the discharge from the facility to which the member was transferred.

Exclusions
Unspecified

MEASURE RESULTS UNDER CONTROL OF HEALTH CARE PROFESSIONALS, ORGANIZATIONS AND/OR POLICYMAKERS

The measure results are somewhat or substantially under the control of the health care professionals, organizations and/or policymakers to whom the measure applies.

NUMERATOR TIME WINDOW

Fixed time period

DATA SOURCE

Administrative data

LEVEL OF DETERMINATION OF QUALITY

Individual Case

PRE-EXISTING INSTRUMENT USED

Unspecified

Computation of the Measure

SCORING

Rate

INTERPRETATION OF SCORE

Better quality is associated with a higher score

ALLOWANCE FOR PATIENT FACTORS

Analysis by subgroup (stratification on patient factors, geographic factors, etc.)

DESCRIPTION OF ALLOWANCE FOR PATIENT FACTORS

This measure requires that separate rates be reported for commercial, Medicare, and Medicaid product plans.

STANDARD OF COMPARISON

External comparison at a point in time
External comparison of time trends
Internal time comparison

Evaluation of Measure Properties

EXTENT OF MEASURE TESTING

Unspecified

Identifying Information

ORIGINAL TITLE

Beta-blocker treatment after a heart attack (BBH).

MEASURE COLLECTION

[HEDIS® 2006: Health Plan Employer Data and Information Set](#)

MEASURE SET NAME

[Effectiveness of Care](#)

DEVELOPER

National Committee for Quality Assurance

INCLUDED IN

Ambulatory Care Quality Alliance

ADAPTATION

Measure was not adapted from another source.

RELEASE DATE

1998 Jan

REVISION DATE

2005 Jan

MEASURE STATUS

This is the current release of the measure.

This measure updates a previous version: National Committee for Quality Assurance (NCQA). HEDIS 2004. Health plan employer data & information set. Vol. 2, Technical specifications. Washington (DC): National Committee for Quality Assurance (NCQA); 2003. 374 p.

SOURCE(S)

National Committee for Quality Assurance (NCQA). HEDIS 2006. Health plan employer data & information set. Vol. 2, Technical specifications. Washington (DC): National Committee for Quality Assurance (NCQA); 2005. 350 p.

MEASURE AVAILABILITY

The individual measure, "Beta-Blocker Treatment After a Heart Attack (BBH)," is published in "HEDIS 2006. Health Plan Employer Data & Information Set. Vol. 2, Technical Specifications."

For more information, contact the National Committee for Quality Assurance (NCQA) at 2000 L Street, N.W., Suite 500, Washington, DC 20036; Telephone: 202-955-3500; Fax: 202-955-3599; Web site: www.ncqa.org.

COMPANION DOCUMENTS

The following is available:

- National Committee for Quality Assurance (NCQA). The state of health care quality 2005: industry trends and analysis. Washington (DC): National Committee for Quality Assurance (NCQA); 2005. 74 p.

For more information, contact the National Committee for Quality Assurance (NCQA) at 2000 L Street, N.W., Suite 500, Washington, DC 20036; Telephone: 202-955-3500; Fax: 202-955-3599; Web site: www.ncqa.org.

NQMC STATUS

This NQMC summary was completed by ECRI on July 18, 2003. The information was verified by the measure developer on August 29, 2003. This NQMC summary was updated by ECRI on June 16, 2006. The updated information was not verified by the measure developer.

COPYRIGHT STATEMENT

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For detailed specifications regarding the National Committee on Quality Assurance (NCQA) measures, refer to HEDIS Volume 2: Technical Specifications, available from the NCQA Web site at www.ncqa.org.

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